

BugBrowser and Comparative BugBrowser

Applications:

- Examining features of microbial genomes
- Dynamic, graphical display of genomic data for viral, bacterial and plasmid genomes
- Visual display of genes, functional classes, DNA sequence and much more
- Visualization of both circular and linear genome views
- Double-stranded linear map with gene-level and nucleotide-level data
- Comparative BugBrowser enables comparison between multiple genomes with an emphasis on gene similarity

Benefits:

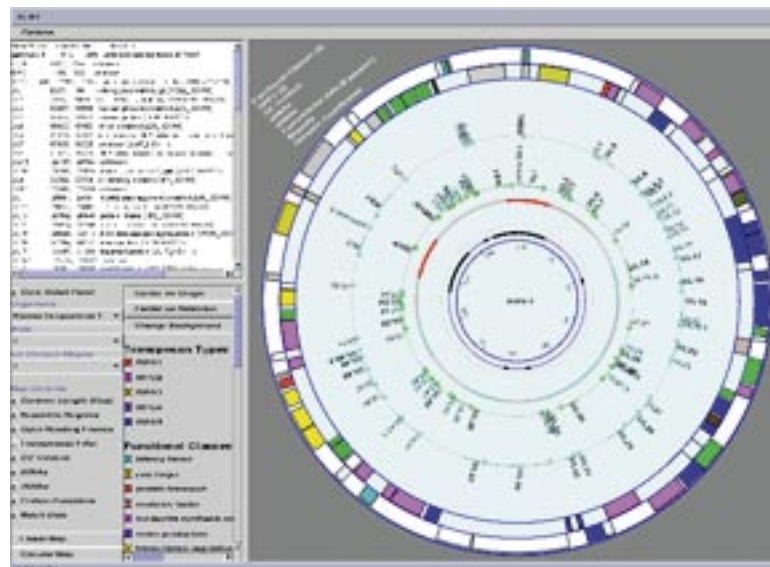
- Flexible, easy-to-use microbial genome research tool
- Scalable views of circular and linear data
- Comparative BugBrowser enables parallel study of multiple genomes

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The genome visualization applet provides dynamic, cross-platform, graphical displays of genomic data for viral and bacterial genomes.

Summary:

Los Alamos National Laboratory's "BugBrowser" is a Java-based software program that provides highly flexible and dynamic visualization of many features of viral, bacterial, and plasmid genomes. The program can be used to graphically view either circular or linear representations of microbial genomes, inclusive of genes, functional classes, DNA sequence, repeats, codons, tRNAs, rRNAs, intergenic regions, introns, exons, transposons, transcription terminators, and GC content. Genetic data can also be shown as a double-stranded linear gene map with each gene's encoded amino acid sequence and detailed text descriptions for the genes. The program is easy to use with user-friendly interfaces and is scalable for all graphic representations.

Comparative BugBrowser supports most of the same features as BugBrowser but provides the user with an additional tool. Comparative BugBrowser enables the user to visually compare multiple genomes, with an emphasis on gene similarity. This tool is important in determining the relationship between different microbes and their respective functions.

Development Stage:

Both programs work on Java-enabled systems. BugBrowser is proven to work and available for download. Comparative BugBrowser is currently in the prototype stage.

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